# Thermoelectric valve drive, 230 V



Article no. MTN639125

#### **Function**

The 230 V thermoelectric valve drive is used to open and shut valves in heating, ventilation and air conditioning technology. It is controlled by a room temperature control unit (230 V) with a two-step output or pulse width modulation.

A large selection of valve adapters ensures that it conforms perfectly to a range of valve bodies and heating circuit distributors. The 230 V thermoelectric valve drive therefore has universal applicability and is suitable for a diverse range of systems.

# **Functions**

### De-energised - closed

The control mechanism of the thermoelectric valve drive works with a PTC-heated expanding element and a compression spring. The expanding element is heated when the operating voltage is applied. After the delay period has expired, the valve will open uniformly. When the operating voltage is switched off, the expanding element will cool down and, when the idle time has expired, the valve will be closed uniformly by the closing pressure of the compression spring. The closing pressure of the compression spring (90 N controlling torque) has been matched to the closing pressure of commercially available valves and holds the valve closed in its de-energised state.

### First-open function

In the supplied state, the 230 V thermoelectric valve drive is opened without current using the first-open function. This makes it possible to operate the heating during the shell construction phase, even if the electrical wiring of the single room heating has not been completed. When started up at a later stage, the first-open function is automatically released when the operating voltage is applied (for longer than 6 min), and the 230 V thermoelectric valve drive is then ready to function normally.

# Functional display

The functional display of the thermoelectric valve drive (all-round display) makes it possible to see the

operating status (valve "open", "closed" or in an intermediate position) at a glance.

### **Features**

- Functional display
- Adjustment control
- Disassembly protection by
- 360° installation position
- Valve leak protection
- First-open function
- Plug-in connecting cable
- Valve adapter
- Plug-in assembly
- Functional design
- Compact construction, small dimensions

## **Application**

- For two-step control in heating, air conditioning and ventilation systems
- Single room heating of radiant panel heating
- Easy control of heating circuit distributors, radiators, convectors, cooling ceilings and similar devices

### **Scope of delivery**

- 1 230-V thermoelectric valve drive with 1-m cable
- 1 installation manual

#### **Accessories**

Valve adapter for the most common valves on the market

VA 10 MTN639110 (Dumser; Vescal; Simplex) VA 50 MTN639150 (Honeywell & Braukmann; Reich; Landis & Gyr;

MNG; Cazzagniga) (Danfoss RA)

VA 78 MTN639178 (Danfoss RA) VA 80 MTN639180 (Heimeier; Herb; Onda;

Schlösser (from 1993); Oventrop M30x1.5;

TeSa)

Optional longer connecting cable (max. 2 m)
Protective cap AA SK 1000 (available on request).



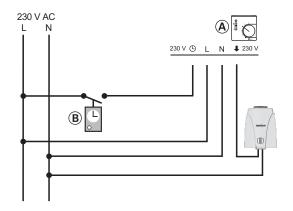
To install the protective cap, a higher valve adapter must be used. Check compact radiators in advance to see if they are suitable.

## Notes on installation/planning

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Risk of fatal injury from electrical current! All work on the device should only be carried out by skilled electrician. Please observe the country-specific regulations.

#### **Overview of connections**



- A Room temperature control unit
- (B) Time switch

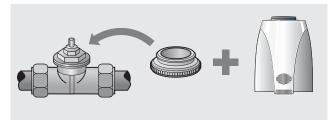
For the installation of a 230 V system, we recommend the following cables:

Light plastic-sheathed cable: NYM1.5 mm<sup>2</sup> Flat webbed cable: NYIF1.5 mm<sup>2</sup>

# **Recommended installation positions**



## Valve adjustment



The valves are adjusted using a valve adapter, various versions of which can be supplied for the most widely

used valve bodies and heating circuit distributors. (remember when ordering)

### **Technical data**

 
 Version
 de-energised closed

 Voltage
 230 V AC/DC, +10%...-10%, 0 to 60 Hz

 Making current max.
 300 mA

for max. 200 MA for max. 200 M

Operating capacity

Opening/closing times

Travel

Positioning force

Operating temperature

Media temperature

Ambient temperature

Operating temperature

Oto +50 °C

Oto +100 °C

Storage temperature

Oto +50 °C

Ambient temperature

Oto +50 °C

Relative humidity

1.8 W

Approx. 3 min

100 N +/- 5%

O to +50 °C

Type of protection/Protection class CE conformity in accordance with Surge protection

Housing/Colour of housing

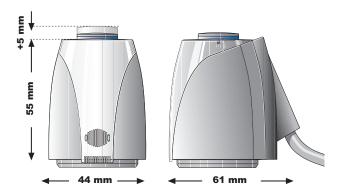
Weight

Connecting cable/Cable length

for max. 200 ms 8 mA
1.8 W
approx. 3 min.
approx. 4 mm
100 N +/- 5%
0 to +50 °C
0 to +100 °C
-25 to +60 °C
0 to +50 °C
max. 80%, noncondensing
IP 54 / II
EN 60730
integrated
polyamide/white
73 g without adapter
and connecting
cable

cable 2 x 0.75 mm<sup>2</sup> PVC, grey 1 m

# **Dimensions**



## **Schneider Electric Industries SAS**

If you have technical questions, please contact the Customer Care Center in your country.

www.schneider-electric.com

This product must be installed, connected and used in compliance with prevailing standards and/or installation regulations. As standards, specifications and designs develop from time to time, always ask for confirmation of the information given in this publication.